

Appln No. 09/870,034
Amdt date August 19, 2004
Reply to Office action of May 20, 2004

REMARKS/ARGUMENTS

Claims 1-35 remain in the present application, of which claims 1, 22 and 30 are independent. Claims 1, 3, 5, 7, 8, 10, 11, 15, 17, 18, 21, 22, 24, 26, 28-30, 32, 34 and 35 have been amended herein. Applicants respectfully request reconsideration and allowance of claims 1-35.

I. Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 1-35 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants have made appropriate corrections as required by the Examiner. Therefore, applicants request that the rejection of claims 1-35 under 35 U.S.C. § 112, second paragraph, be withdrawn.

II. Rejection under 35 U.S.C. § 103

Claims 1-35 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Publication No. US 2001/0026677 A1 ("Chen et al."). The Office Action states, while rejecting claims 1-35, that "Chen does not teach particularly zeroing out means zeroes out pixels of the first P-picture, except for the pixels that correspond to the first section." However, the Office Action further states that "Chen suggests that the decoded P-frame information would be discarded, the decoded P-frame information is interpreted as a P picture section that is not I-slices section is discarded, blacked out, or zeroed out. Therefore, it would have been

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obvious to one of ordinary skill in the art to use the discarding the decoded P-picture for the zeroing out the P section to get the same result as claimed."

Applicants submit, however, that Chen et al. nowhere teaches or suggests blacking out or zeroing out any of the pixels, and further submit that zeroing out pixels is different from merely discarding them. The method of displaying a progressive refresh bitstream in an exemplary embodiment of the present invention, as recited in claim 1, includes "zeroing out pixels of the decoded first P-picture, except for pixels that correspond to the first section, prior to displaying the decoded first P-picture; and displaying the decoded first P-picture having the pixels that have been zeroed out." By zeroing out some of the pixels, a decoded P-picture of a progressive refresh bitstream can be displayed as a frame/picture without undesirable artifacts. When these same pixels are discarded instead of being zeroed out, only a fragment of a frame would then remain, which would then require assembling a number of such fragments together to form a complete frame.

In contrast to the present application which discloses "displaying the decoded first P-picture having the pixels that have been zeroed out," Chen et al. teaches that "[o]nce all I-slices which make up a complete I-frame are recovered, the I-slices are assembled into a complete I-frame and encoded (step 104)." The decoded P-frame information may be discarded. A selected P-frame in the buffered MPEG data stream is replaced with the complete I-frame to provide an encoded I-frame based

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data stream (step 105)." (Emphasis Added, page 3, paragraph 0025, lines 14-20).

As can be seen in the above passage from Chen et al., which is also cited in the Office Action, Chen et al. clearly teaches assembling the I-slices into a complete I-frame to provide an encoded I-frame based data frame. Nowhere does Chen et al. teach or suggest that a decoded P-frame having pixels that have been zeroed out is displayed prior to assembling a complete I-frame. Since Chen et al. does not disclose zeroing out pixels, and does not disclose displaying the decoded pictures having pixels that have been zeroed out, applicants submit that the claims of the present application are not obvious over Chen et al.

Since Chen et al. neither teaches nor suggests the method of displaying a progressive refresh bitstream of claim 1, applicants request that the rejection of claim 1 be withdrawn and that it be allowed.

Since claims 2-21 depend, directly or indirectly, from claim 1, they incorporate all the terms and limitations of claim 1 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 2-21 be withdrawn and that they be allowed.

Claim 22 recites, in a relevant portion, that "[a]n apparatus for decoding and displaying a progressive refresh bitstream . . . wherein the zeroing out means zeroes out pixels of the decoded first P-picture, except for pixels that correspond to the first section, and wherein the display

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displays the decoded first P-picture with the pixels, except for the pixels that correspond to the first section, zeroed out."
(Emphasis Added).

As discussed above in reference to claim 1, Chen et al. teaches that "[o]nce all I-slices which make up a complete I-frame are recovered, the I-slices are assembled into a complete I-frame and encoded" and does not teach or suggest that "the display displays the decoded first P-picture with the pixels, except for the pixels that correspond to the first section, zeroed out." Therefore, claim 22 is not obvious over Chen et al.; hence, applicants request that the rejection of claim 22 be withdrawn and that it be allowed.

Since claims 23-29 depend, directly or indirectly, from claim 22, they incorporate all the terms and limitations of claim 22 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 23-29 be withdrawn and that they be allowed.

Claim 30 recites, in a relevant portion, that "[a] system for encoding and decoding a progressive refresh bitstream. . . wherein the zeroing out means zeroes out pixels of the decoded first P-picture, except for pixels that correspond to the first section, and wherein the display displays the decoded first P-picture with the pixels, except for the pixels that correspond to the first section, zeroed out" (Emphasis Added).

As discussed above in reference to claim 1, Chen et al. teaches that "[o]nce all I-slices which make up a complete I-frame are recovered, the I-slices are assembled into a complete

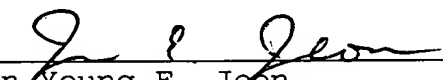
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I-frame and encoded" and does not teach or suggest that "the display displays the decoded first P-picture with the pixels, except for the pixels that correspond to the first section, zeroed out." Therefore, claim 30 is not obvious over Chen et al.; hence, applicants request that the rejection of claim 30 be withdrawn and that it be allowed.

Since claims 31-35 depend, directly or indirectly, from claim 30, they incorporate all the terms and limitations of claim 30 in addition to other limitations, which together further patentably distinguish them over the cited references. Therefore, applicants request that the rejection of claims 31-35 be withdrawn and that they be allowed.

In view of the foregoing amendments and remarks, applicants respectfully request an early issuance of a patent with claims 1-35. If there are any remaining issues that can be addressed over the telephone, the Examiner is invited to call applicants' attorney at the number listed below.

Respectfully submitted,
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